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09/820,854	03/30/2001	Tatsuro Kawamura	43888-100	7033

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EXAMINER
GORDON, BRIAN R

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/820,854

Applicant(s)

KAWAMURA, TATSUROU *abj*

Examiner

Brian R. Gordon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 11, 19 is/are rejected.
- 7) ☐ Claim(s) 2-7, 9, 10, 12-18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract contains claim terminology such as consisting of and comprising.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Curtis et al. US 5,298,978.

Curtis et al. disclose methods and apparatus for accurately determining the volume of a pipette using a photometer. A reagent system for use with the photometer includes a first container holding a reference solution and at least one second container holding a sample solution. A container holding the reference solution having maximum absorbance at a first wavelength is positioned in the photometer. The absorbances of the container at the first wavelength and at a second wavelength are measured (measuring transmitted light). Then the optical pathlength of the container at the second wavelength is calculated from the measured absorbances at the first and second wavelengths. An aliquot of the sample solution is introduced into the container with a pipette to be calibrated. The sample solution has maximum absorbance at the second wavelength. The sample solution is mixed with the reference solution to form a mixture. Then the absorbance (measuring characteristic of sample) of the mixture in the container is measured at the second wavelength. The volume of the aliquot is calculated from the absorbance of the mixture and the optical pathlength of the container (verifying a predetermined amount of sample solution). The volume of the aliquot represents the volume of the pipette.

6. Claims 1, 8, 11, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hughes et al. US 4,381,895.

Hughes et al. discloses a method of using a refractometer for determining the amount of dissolved solids in a series of sample solutions which comprises: directing a collimated monochromatic light beam through an empty hollow prismatic container and refracting it onto first light sensing means (verifying predetermined amount), indicating when the refractometer is ready to receive a sample, introducing a sample solution into the prismatic container, thereby causing refraction of the collimated light beam passing therethrough to a second light-sensing means, instead of to the first light-sensing means, commencing the testing sequence only after all of the light beam has been refracted away from the first light-sensing means, and simultaneously indicating that testing is in progress, determining the amount of refraction of the light beam caused by passing through the sample solution (measuring optical characteristic of sample), converting the amount of refraction of the light beam into an analog electrical signal, converting the analog signal to a digital signal, displaying digitally an amount corresponding to the digital signal, stated as a function of the concentration of dissolved solids in the sample solution, automatically draining the prismatic container, and simultaneously causing the light beam to be refracted to the first light-sensing means, and automatically recommencing the sequence by indicating that the refractometer is ready to receive another sample.

7. Claims 1, 8, 11, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Clinkenbeard US 5,104,527.

Clinkenbeard discloses A process and apparatus for automatically monitoring or adjusting, or both, the concentration of total reducers (i.e. reduced sulfur-containing

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constituents which consume iodine) in an aqueous medium (e.g. waste water stream) whereby the time period for iodine titration of an untreated sample of the aqueous medium is automatically measured by measuring a time of light being transmitted through a titration sample cell and this time measurement is automatically translated into an output signal to either a monitoring means or a process adjustment means (e.g. oxidant chemical feed pump) or both.

The amount of sample (preferably 100 ml of water sample) sent to sample cell 24 is controlled by an optical liquid level detector system shown in FIG. 3. The sample cell 24 is preferably made of clear acrylic plastic. Other similar clear, rigid and chemically inert materials may be used instead for constructing cell 24. As the sample cell 24 fills with the water sample from the bottom of the cell 24, it reaches the level of a light source 28 and light sensor 30 (verifying predetermined amount). In an empty sample cell 24, the path of light from light source 28 passes through air directly to light sensor 30. When water reaches this level of the light path, the light path is refracted by the water away from the sensor 30. Both of the effects are shown in FIG. 3. At that point of time, the sensor 30 immediately sends an electronic signal to computer/interface module 32 in an electronic enclosure shown in FIG. 1. The computer/interface module 32 in turn sends an electronic signal to solenoid-activated piston 26 to close it, as it had previously done to open or close valves 8, 12, 16 and 18 as described above. Power supply means 34 provides the electric power for these signals. When solenoid-activated piston 26 closes, a precise predetermined sample quantity has been introduced into sample cell 24 and is ready for testing.

Iodine is also added to the verified amount of sample solution and its concentration is measured as a function of light transmission (column 7, line 62-column 8 line 41).

***Allowable Subject Matter***

8. Claims 2-7, 9-10, 18, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach nor fairly suggest that step (b) is a step of verifying that the predetermined amount of said sample solution is held in said sample cell based on the fact that an absolute value of an amount of change in said out put signal per hour is maintained at a first predetermined value or less for a first predetermined duration or longer.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fernando et al., Wei et al. (,983 and ,961), Ziegler, Khalil et al., Horine et al., Kawamura (,142 and ,622), Chang et al., Brookes et al., Hasegawa et al., and Sternberg disclose methods and apparatuses for making measurements using sources of light.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

brg

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700